



**Manchester
Metropolitan
University**

Phibbs, P, Read, D ORCID logoORCID: <https://orcid.org/0000-0001-6367-0261>, Till, K, Atkinson, M, Williams, S, Stokes, K, Kemp, S and Jones, B (2019) Bigger, stronger, faster: The differences in physical qualities between player development group and England academy players in youth rugby union. In: The 9th World Congress on Science and Football (WCSF), 04 June 2019 - 07 June 2019, Melbourne, VIC, Australia.

Downloaded from: <https://e-space.mmu.ac.uk/625797/>

Please cite the published version

<https://e-space.mmu.ac.uk>



**WORLD CONGRESS ON
SCIENCE & FOOTBALL**

4-7 JUNE | MELBOURNE CONVENTION
AND EXHIBITION CENTRE



RFU



UNIVERSITY OF
BATH



LEEDS BECKETT UNIVERSITY

CARNEGIE SCHOOL OF SPORT

BIGGER, STRONGER, FASTER: THE DIFFERENCES IN PHYSICAL QUALITIES BETWEEN PLAYER DEVELOPMENT GROUP AND ENGLAND ACADEMY PLAYERS IN YOUTH RUGBY UNION

**Padraic J. Phibbs, Dale Read, Cameron Owen, Kevin Till, Mark Atkinson,
Sean Williams, Keith Stokes, Simon Kemp, & Ben Jones**



LEEDS
BECKETT
UNIVERSITY

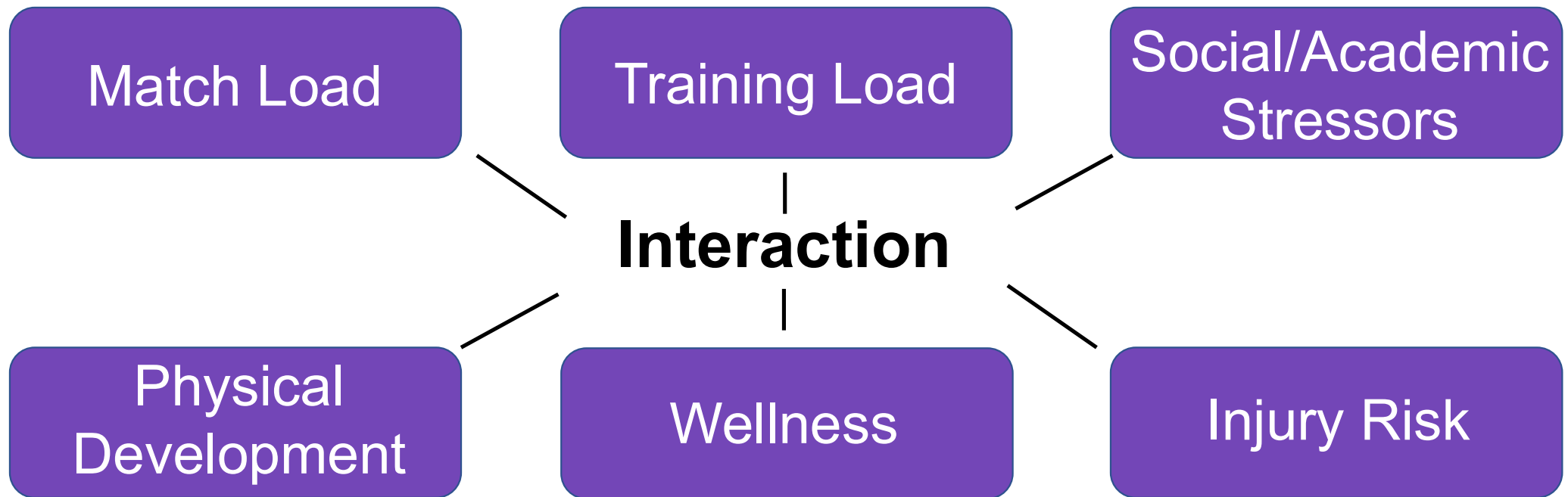


RFU



UNIVERSITY OF
BATH

Talented Developing Player Project





777 Players



1,089 Observations



35 Academy Visits



7,865 km Driven



SARACENS





PDG

**"Entry Point to the
Academy System for
Talent Identified
Developing Players"**



EAP

**"Designation Given to
Players Demonstrating
the Greatest Potential
at Each Age Group"**

**Senior
Academy (18+)**

**Junior
Academy (16-18 years)**

**Development
Squads (15-16 years)**

**Developing Player
Programme (13-16 years)**

School & Club Participation

How do Player Development Group
and England Academy Players
Differ in Anthropometric and Physical
Characteristics?



LEEDS
BECKETT
UNIVERSITY



RFU



UNIVERSITY OF
BATH

Talented Developing Player Project



178 U18 Players



359 Observations



EAP

$n = 41$

17.3 ± 0.6 years



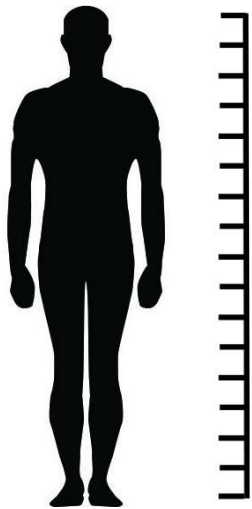
PDG

$n = 137$

17.4 ± 0.6 years

Likely Trivial





Stature



Body Mass



Body Fat %



CMJ



IMTP



40 m Sprint



30-15 IFT



RFU

**Talented Developing Player Project
Standardised Physical Testing Battery**

Forwards



EAP

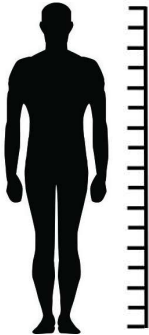


PDG

186 ± 4 vs. 183 ± 7 cm

EAP *Almost Certainly* Greater ($d = 0.8 \pm 0.3$)

Stature



Body Mass



102 ± 12 vs. 95 ± 12 kg

EAP *Very Likely* Greater ($d = 0.5 \pm 0.3$)

Body Fat %



24 ± 5 vs. $22 \pm 7\%$

EAP *Possibly* Greater ($d = 0.3 \pm 0.3$)

Backs



EAP



PDG

181 ± 6 vs. 178 ± 6 cm

EAP *Very Likely* Greater ($d = 0.6 \pm 0.4$)

85 ± 12 vs. 79 ± 8 kg

EAP *Likely* Greater ($d = 0.5 \pm 0.3$)

18 ± 4 vs. $17 \pm 5\%$

EAP *Possibly* Greater ($d = 0.2 \pm 0.4$)

Forwards



EAP



PDG

32 ± 5 vs. 34 ± 5 cm

EAP *Possibly Lower* ($d = -0.3 \pm 0.4$)

1973 ± 252 vs. 1865 ± 219 N

EAP *Likely Greater* ($d = 0.4 \pm 0.3$)

20 ± 3 vs. 20 ± 3 N·kg⁻¹

Unclear ($d = 0.1 \pm 0.3$)

Backs



EAP



PDG

38 ± 6 vs. 38 ± 6 cm

Unclear ($d = 0.0 \pm 0.4$)

1764 ± 276 vs. 1664 ± 250 N

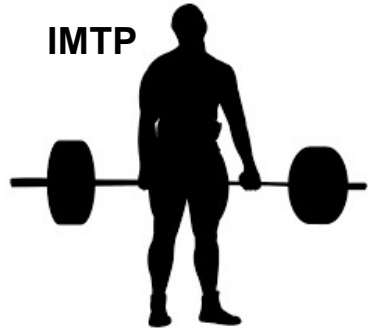
EAP *Likely Greater* ($d = 0.4 \pm 0.4$)

21 ± 3 vs. 21 ± 3 N·kg⁻¹

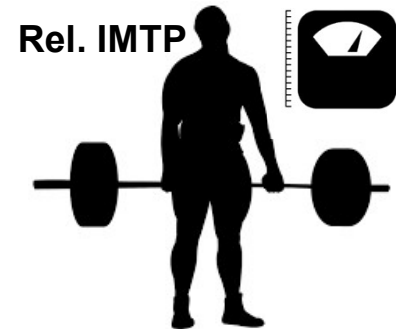
Unclear ($d = 0.1 \pm 0.4$)



CMJ Height



IMTP



Rel. IMTP

Forwards



EAP



PDG

Backs

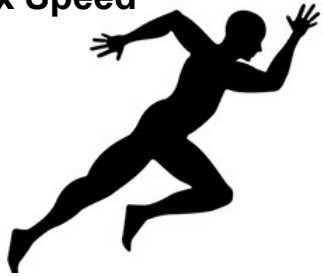


EAP



PDG

Max Speed



8.1 ± 0.5 vs. 8.2 ± 0.6 m·s⁻¹

EAP *Possibly* Lower ($d = -0.2 \pm 0.4$)

8.8 ± 0.3 vs. 8.6 ± 0.4 m·s⁻¹

EAP *Likely* Greater ($d = 0.4 \pm 0.4$)

10 m Mom



560 ± 53 vs. 524 ± 57 kg·m·s⁻¹

EAP *Very Likely* Greater ($d = 0.7 \pm 0.4$)

486 ± 67 vs. 454 ± 44 kg·m·s⁻¹

EAP *Likely* Greater ($d = 0.5 \pm 0.4$)

30-15 IFT



18.2 ± 1.4 vs. 18.2 ± 1.4 km·h⁻¹

Unclear ($d = 0.0 \pm 0.4$)

19.4 ± 1.0 vs. 19.6 ± 1.1 km·h⁻¹

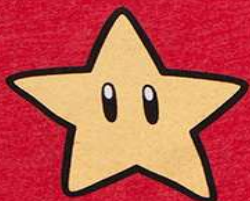
EAP *Possibly* Lower ($d = -0.3 \pm 0.4$)



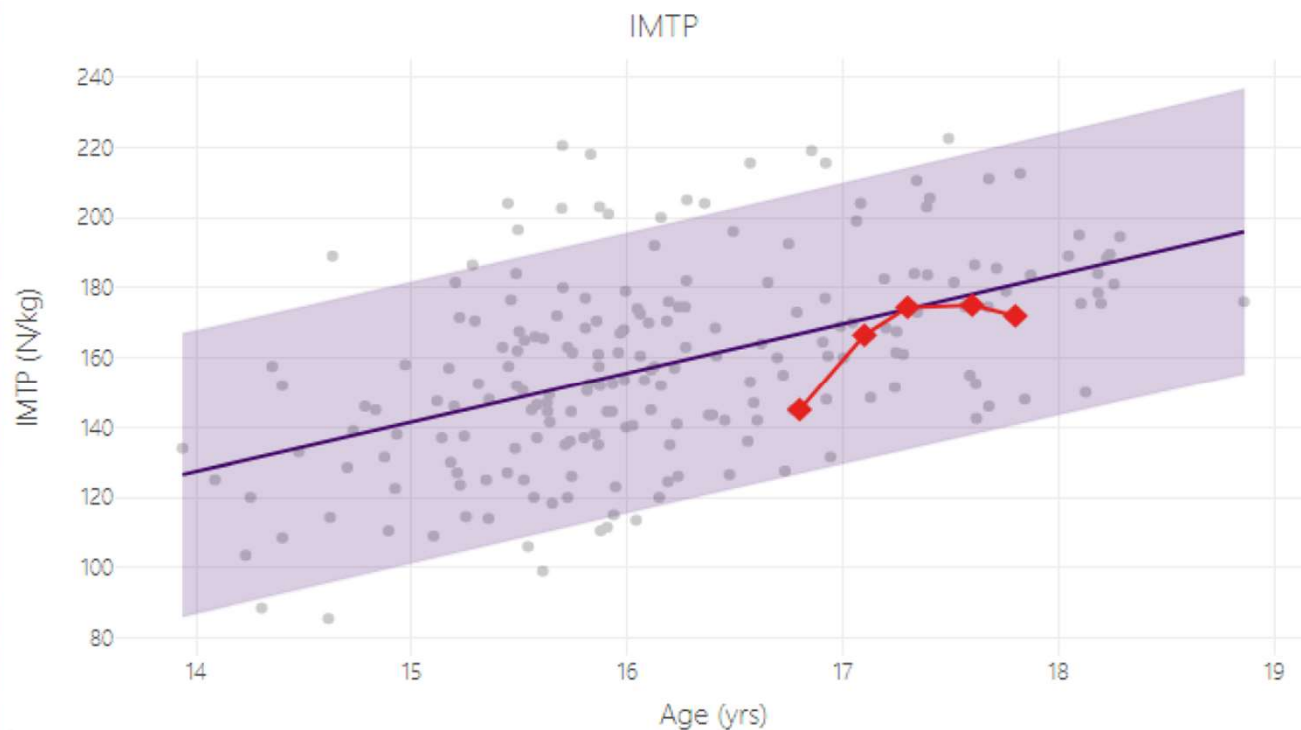
BIGGER



STRONGER



FASTER

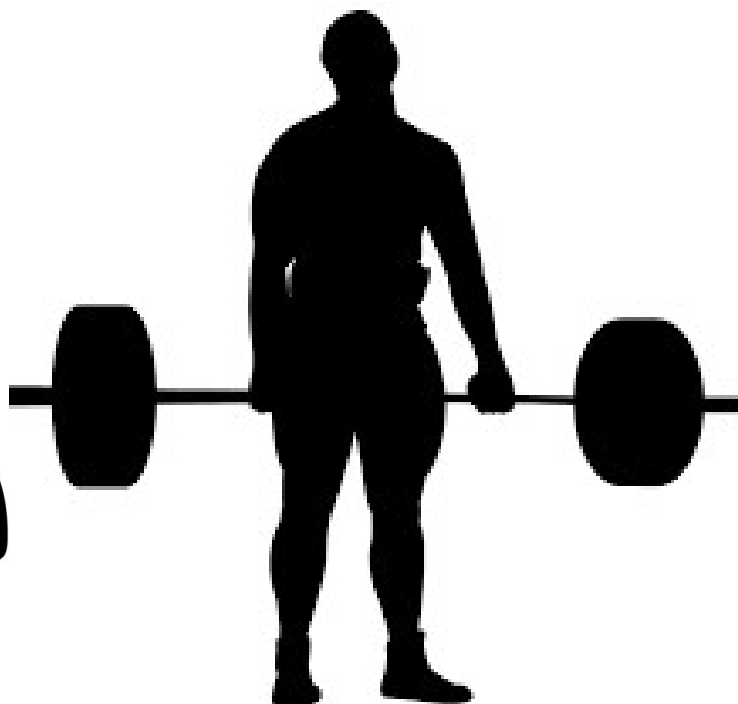


Caution





ATTENTION



Carnegie Applied Rugby Research Centre



LEEDS
BECKETT
UNIVERSITY



WORLD CONGRESS ON SCIENCE & FOOTBALL

4-7 JUNE | MELBOURNE CONVENTION
2019 | AND EXHIBITION CENTRE



RFU



UNIVERSITY OF
BATH

Thank you

Any questions?

